CLAIM AMENDMENTS

Please amend the claims as follows.

Please cancel claims 1-4 and 8-10, without prejudice.

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5. (Original)   A reconfigurable computing chip comprising an on-chip configuration cache containing a multiplicity of stored configurations, wherein each configuration is identified by a unique off-chip address used to fetch that configuration.

6. (Currently amended)   [The apparatus] The reconfigurable computing chip of Claim 5, where each configuration is compressed.

7. (Currently amended)   [The apparatus] The reconfigurable computing chip of Claim 5, where the identification of the address is performed using contents-addressable memory.

Please add the following new claims:

11. (Currently Added) The reconfigurable computing chip of claim 5, wherein the on-chip configuration cache includes an compressed cache.

12. (Currently Added) The reconfigurable computing chip of claim 5, wherein the on-chip configuration cache includes a decompressed cache.

13. (Currently Added) The reconfigurable computing chip of claim 12, further comprising an active configuration plane configured from configuration content retrieved from the decompressed cache.

14. (Currently added) The reconfigurable computing chip of claim 13, wherein the on-chip cache includes a compressed cache.

15. (Currently added) The reconfigurable computing chip of claim 14, wherein the configuration content in the decompressed cache is promoted from the decompressed cache.

16. (Currently added) A method of configuring a reconfigurable chip, the method comprising:

    decompressing configuration content resident within an on-chip compressed cache; and

    storing the decompressed configuration content in an on-chip decompressed cache from which an active configuration plane is configured.

17. (Currently added) A method of configuring a reconfigurable chip according to claim 16, further comprising:

    configuring an active configuration plane of the reconfigurable chip from configuration content in the on-chip decompressed cache.

18. (Currently added) A method of configuring a reconfigurable chip according to claim 17, the element of configuring comprising:

    decoding configuration content from the on-chip decompressed cache; and

applying configuration content to intersections of select rows and columns, including a multiplicity of such intersections for the same configuration content.

19. (Currently added) A method of configuring a reconfigurable chip according to claim 18, the element of configuring further comprising:

changing at least a subset of a computing element's configuration;

holding fixed at least some of a storage element's configuration to implement data-in-place reconfiguration of the reconfigurable chip.

20. (Currently added) A system comprising:

a reconfigurable chip including an on-chip configuration cache containing a multiplicity of stored configurations, wherein each configuration is identified by a unique off-chip address used to fetch that configuration; and

an external storage, coupled with the reconfigurable chip, from which at least a subset of the multiplicity of stored configurations may be fetched.

21. (Currently added) A system according to claim 20, wherein each configuration is compressed.

22. (Currently added) A system according to claim 20, wherein the identification of the addresses is performed using content-addressable memory.